CalRecycle's Tire Derived Aggregate Market Development and Research Program Status

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MARKET DEVELOPMENT: Completed TDA Projects:

Dixon Landing/Hwy880, Embankment	660,000 PTE
VTA - Vasona light rail, vibration mitigation	100,000 PTE
Marina Dr., Slide Repair	131,200 PTE
Riverside Co. Retaining wall pilot projects	
Wall 119	84,000 PTE
Wall 207	141,000 PTE
Geysers Road, Slide repair	153,700 PTE
Confusion Hill/Hwy101, Embankment	375,000 PTE
Sonoma Mtn Road, Slide repair	330,300 PTE
Palomino Road, Slide repair	20,000 PTE
BART Warm Springs Extension	250,000 PTE
Metro Transit Authority, Gold Line	700,000 PTE

MARKET DEVELOPMENT: TDA Grant Projects

- Kiefer Landfill, Gas/leached collection recirculation system.
- Kiefer Landfill Wet weather pad.
- Johnson Canyon Landfill, LGCS (Landfill Gas Collection System)
- Hwy 59 Landfill, LGCS
- Tri Cities Recycling Facility, Barrier System Berm
- Chiquita Canyon, LGCS
- Riverside Co., Badlands and Lamb Canyon LGCS

TDA RESEARCH PROGRAM:

- Aquatic Toxicity Analysis and Chemical Composition of run off for TDA above and below the water table.
  - This research allowed CalRecycle to obtain WDR's from the RWQCB
  - Data from this research is currently used as a reference for many TDA projects to address potential water quality impacts of TDA through out the US.
- Analysis of Vibration Attenuation Properties of TDA.
  - This research resulted in the Vibration Mitigation Technology used for numerous Light rail projects in CA, OR and CO.

TDA RESEARCH PROGRAM: (continued)

- TDA project Slope stability and settlement analysis of current TDA projects.
  - Research has resulted in design advancements for using TDA in landslide repairs and a new TDA mechanically stabilized Earth slide repair application.
- Landfill Gas Collection and Leachate Recirculation research projects.
  - Research has resulted in CA landfills using the technology to replace conventional aggregate.

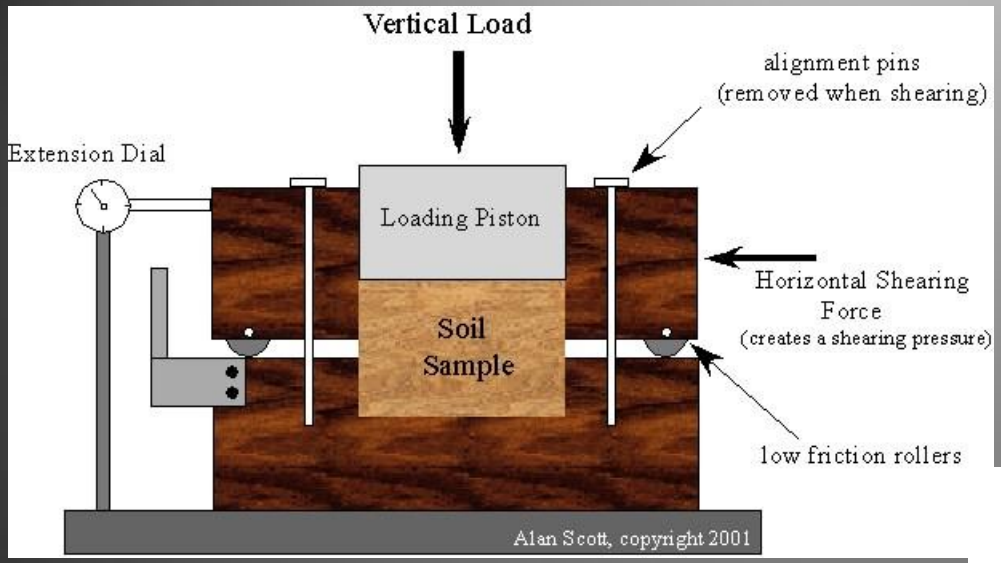
TDA RESEARCH PROGRAM: (continued)

- Full Scale Seismic Shake Test UCSD
  - Research has resulted in the development of a new Caltrans retaining wall using a TDA backfill.

Full Scale Seismic Shake Test UCSD

TDA RESEARCH PROGRAM: (continued)

- Full Scale TDA Shear Box Testing at UCSD
  - Constructed large Shear Box to accommodate TDA's large particle size.
  - This testing has made it possible to obtain a high quality measurement of TDA's internal and interface shear strengths.
  - Measurements are critical in order to utilize the benefits of TDA in designing civil engineering projects.



Typical Soil Shear box

Full Scale Shear Box Project UCSD

Questions